 AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Original)   A method for controlling a reverse link rate by using the number of active users who are carrying out communication in a CDMA 1xEV-DO mobile communication system, comprising the steps of:

(a) measuring a value of rise-over-thermal (ROT) at each antenna end of a wireless base station to obtain a measured ROT value;

(b) comparing the measured ROT value with a threshold ROT which defines an allowable limit of the ROT;

(c) setting a reverse activation control bit as 0 to be transmitted to a mobile terminal if the comparison result in step (b) reveals that the measured ROT value is smaller than or equal to the threshold ROT;

(d) comparing the number of the active users with a threshold user number which defines an allowable limit of the active users if the comparison result in step (b) reveals that the measured ROT value is greater than the threshold ROT;

(e) setting the reverse activation control bit as 0 to be transmitted to the mobile terminal if the comparison result in step (d) reveals that the number of the active users is smaller than or equal to the threshold user number; and

(f) setting the reverse activation control bit as 1 to be transmitted to the mobile terminal if the comparison result in step (d) reveals that the number of the active users is greater than the threshold user number.

2. (Original)   The method of claim 1, wherein the ROT value is obtained by subtracting a thermal noise power of the system from a received power measured at said each antenna end.

3. (Original)   The method of claim 2, wherein the thermal noise power is measured at a state where a reverse transmission of the mobile terminal is ceased.

4. (Original)   The method of claim 1, wherein the measured ROT value is a largest

value among ROT values measured at said each antenna end of the wireless base station.

5. (Original)   The method of claim 1, wherein the mobile terminal lowers the reverse link rate if the reverse activation control bit with a value of 1 is transmitted in step (f).

6. (Original)   The method of claim 1, wherein the mobile terminal includes a PDA (Personal Digital Assistant), a cellular phone, a PCS (Personal Communication Service) phone, a hand-held PC, a GSM (Global System for Mobile) phone, a W-CDMA (Wideband CDMA) phone, an EV-DO phone, an EV-DV (Data and Voice) phone and a MBS (mobile Broadband System) phone.

7. (Original)   The method of claim 1, wherein the mobile terminal transmits packet data to the wireless base station on a time slot basis through a reverse traffic channel.

8. (Original)   The method of claim 1, wherein the threshold ROT is 1000.

9. (Original)   The method of claim 1, wherein the threshold user number is 4.

10. (**Currently Amended**)   A method for controlling a reverse link rate by using a cell self-interference rate in a CDMA 1xEV-DO mobile communication system, comprising the steps of:
(a) measuring a value of rise-over-thermal (ROT) at each antenna end of a wireless base station to obtain a measured ROT value;
(b) comparing the measured ROT value with a threshold ROT which defines an allowable limit of the ROT;
(c) setting a reverse activation control bit as 0 to be transmitted to a mobile terminal if the comparison result in step (b) reveals that the measured ROT value is smaller than or equal to the threshold ROT;
(d) comparing the cell self-interference rate with a threshold interference rate which defines an allowable limit of the cell self-interference rate if the comparison result in step (b) reveals that the measured ROT value is greater than the threshold ROT;

(e) setting the reverse activation control bit as 0 to be transmitted to the mobile terminal if the comparison result in step (d) reveals that the cell self-interference rate is smaller than or equal to the threshold interference rate; and;

(f) setting the reverse activation control bit as 1 to be transmitted to the mobile terminal if the comparison result in step (d) reveals that the cell self-interference rate is greater than the threshold interference rate; and

(g) setting the reverse activation control bit as 1 to be transmitted to the mobile terminal if a number of the active users is greater than a threshold user number.

11. (Original)   The method of claim 10, wherein the ROT value is obtained by subtracting a thermal noise power of the system from a received power measured at said each antenna end.

12. (Original)   The method of claim 11, wherein the thermal noise power is measured at a state where a reverse transmission of the mobile terminal is ceased.

13. (Original)   The method of claim 10, wherein the measured ROT value is a largest value among ROT values measured at said each antenna end of the wireless base station.

14. (Original)   The method of claim 10, wherein the cell self-interference rate is obtained by using an amount of load generated by packets normally received from the mobile terminal.

15. (Original)   The method of claim 10, wherein the mobile terminal lowers the reverse link rate if the reverse activation control bit with a value of 1 is transmitted in step (f).

16. (Original)   The method of claim 10, wherein the mobile terminal includes a PDA (Personal Digital Assistant), a cellular phone, a PCS (Personal Communication Service) phone, a hand-held PC, a GSM (Global System for Mobile) phone, a W-CDMA (Wideband CDMA) phone, an EV-DO phone, an EV-DV (Data and Voice) phone and a MBS (mobile Broadband System) phone.

17. (Original)   The method of claim 10, wherein the mobile terminal transmits packet

data to the wireless base station on a time slot basis through a reverse traffic channel.

18. (Original)   The method of claim 10, wherein the threshold ROT is 1000.

19. (Original)   The method of claim 10, wherein the threshold interference rate is 15%.

20. (**Currently Amended**)   A method for controlling a reverse link rate in a CDMA 1xEV-DO mobile communication system, comprising the steps of:

(a) measuring a value of rise-over-thermal (ROT) at each antenna end of a wireless base station to obtain a measured ROT value;

(b) comparing the measured ROT value with a threshold ROT which defines an allowable limit of the ROT;

(c) setting a reverse activation control bit as 0 to be transmitted to a mobile terminal if the comparison result in step (b) reveals that the measured ROT value is smaller than or equal to the threshold ROT;

(d) comparing the number of active users who are carrying out communication with a threshold user number which defines an allowable limit of the active users ~~or comparing~~and comparing a cell self-interference rate with a threshold interference rate which defines an allowable limit of the cell self-interference rate if the comparison result in step (b) reveals that the measured ROT value is greater than the threshold ROT;

(e) setting the reverse activation control bit as 0 to be transmitted to the mobile terminal if the comparison result in step (d) reveals that the number of the active users and the cell self-interference rate are smaller than or equal to the threshold user number and the threshold interference rate, respectively; and

(f) setting the reverse activation control bit as 1 to be transmitted to the mobile terminal if the comparison result in step (d) reveals that the number of the active users is greater than the threshold user number or the cell self-interference rate is greater than the threshold interference rate.

21. (Original)   The method of claim 20, wherein the ROT value is obtained by subtracting a thermal noise power of the system from a received power measured at said each antenna end.

22. (Original)   The method of claim 21, wherein the thermal noise power is measured at a state where a reverse transmission of the mobile terminal is ceased.

23. (Original)   The method of claim 20, wherein the measured ROT value is a largest value among ROT values measured at said each antenna end of the wireless base station.

24. (Original)   The method of claim 20, wherein the cell self-interference rate is obtained by using an amount of load generated by packets normally received from the mobile terminal.

25. (Original)   The method of claim 20, wherein the mobile terminal lowers the reverse link rate if the reverse activation control bit with a value of 1 is transmitted in step (f).

26. (Original)   The method of claim 20, wherein the mobile terminal includes a PDA (Personal Digital Assistant), a cellular phone, a PCS (Personal Communication Service) phone, a hand-held PC, a GSM (Global System for Mobile) phone, a W-CDMA (Wideband CDMA) phone, an EV-DO phone, an EV-DV (Data and Voice) phone and a MBS (mobile Broadband System) phone.

27. (Original)   The method of claim 20, wherein the mobile terminal transmits packet data to the wireless base station on a time slot basis through a reverse traffic channel.

28. (Original)   The method of claim 20, wherein the threshold ROT is 1000.

29. (Original)   The method of claim 20, wherein the threshold user number is 4.

30. (Original)   The method of claim 20, wherein the threshold interference rate is 15%.

31. (**Currently Amended**)   A system for controlling a reverse link rate in a CDMA 1xEV-DO mobile communication system, comprising:
        at least one mobile terminal capable of transceiving packet data with the reverse link rate changed based on a reverse activation control bit to be received;

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a radio access network for measuring a value of rise-over-thermal (ROT) of the system to obtain a measured ROT value, determining the reverse activation control bit by using at least one of the measured ROT value, the number of active users who are carrying out communication and a cell self-interference rate and transmitting the reverse activation control bit to control the reverse link rate; and

a mobile switching center connected to the radio access network for performing incoming and outgoing call process of the mobile terminal and also connected to be linked with a data communication network;

wherein the reverse activation control bit is set to have a value of 0 if the measured ROT value is greater than a threshold ROT which represents an allowable limit of the ROT but the number of the active users and the cell self-interference rate are smaller than or equal to a threshold user number which represents an allowable limit of the active user and a threshold interference rate which represents an allowable limit of the cell self-interference rate, respectively.

32. (Original)   The system of claim 31, wherein the reverse activation control bit is set to have a value of 0 if the measured ROT value is smaller than or equal to a threshold ROT which represents an allowable limit of the ROT.

33. (**Canceled**).

34. (Original)   The system of claim 31, wherein the reverse activation control bit is set to have a value of 1 if the measured ROT value is greater than a threshold ROT which represents an allowable limit of the ROT and if the number of the active users is greater than a threshold user number which represents an allowable limit of the active users or the cell self-interference rate is greater than a threshold interference rate which represents an allowable limit of the cell self-interference rate.

35. (Original)   The system of claim 31, wherein the mobile terminal lowers the reverse link rate if the reverse activation control bit with a value of 1 is transmitted.

36. (Original)   The system of claim 31, wherein the mobile terminal includes a PDA (Personal Digital Assistant), a cellular phone, a PCS (Personal Communication Service) phone,

a hand-held PC, a GSM (Global System for Mobile) phone, a W-CDMA (Wideband CDMA) phone, an EV-DO phone, an EV-DV (Data and Voice) phone and a MBS (mobile Broadband System) phone.

37. (Original)   The system of claim 31, wherein the mobile terminal transmits packet data to the radio access network on a time slot basis through a reverse traffic channel.

38. (Original)   The system of claim 31, wherein the data communication network includes a PSDN (Public Switched Data Network), an ISDN (Integrated Services Digital Network), a B-ISDN (Broad ISDN), an IN (Intelligent Network), a PLMN (Public Land Mobile Network) and Internet.

39. (Original)   The system of claim 31, wherein the ROT value is obtained by subtracting a thermal noise power of the system from a received power measured at each antenna end of a wireless base station.

40. (Original)   The system of claim 39, wherein the thermal noise power is measured at a state where a reverse transmission of the mobile terminal is ceased.

41. (Original)   The system of claim 31, wherein the measured ROT value is a largest value among ROT values measured at each antenna end of a wireless base station.

42. (Original)   The system of claim 31, wherein the cell self-interference rate is obtained by using an amount of load generated by packets normally received from the mobile terminal.

43. (Original)   The system of claim 32, wherein the threshold ROT is 1000.

44. (Original)   The system of claim 32, wherein the threshold user number is 4.

45. (**Currently Amended**)   The system of ~~claim 33~~claim 31, wherein the threshold interference rate is 15%.